California has attempted to encourage the use of existing IPM methods by requiring all applicators of restricted-use pesticides to provide sufficient information to indicate whether they were using available IPM methods. Such a system depends upon the commitment of the local enforcing agency to maintain close scrutiny of pesticide use to ensure that available IPM methods are implemented.

In some cases, it is possible to reduce leaching of pesticides by changing the timing of irrigation and pesticide applications. Models of pesticide movement indicate that the time interval between the application of a pesticide and the first infiltration of water (either from rainfall or from irrigation) can have a tremendous impact on the pesticide concentration reaching ground water. This is because many pesticides will degrade when they are above the soil or near the surface. The degradation rate generally decreases as infiltrating water moves the pesticide deeper in the ground. Hence, pesticide pollution could potentially be reduced by improved timing of irrigation and by avoiding pesticide applications when rain is predicted. The use of "chemigation," the addition of pesticides to irrigation water, should be considered very carefully. The California bill AB 2021 has a provision for cancellation of registration for lack of data on pesticides that are applied by chemigation or ground injection.

Another way to reduce pesticide pollution in ground water is to replace currently used pesticides with substitutes that are either less toxic or are less likely to migrate into ground water. New pesticides research has resulted in the creation of some pesticides that are less persistent and/or less toxic to humans. Other pesticides are being designed to be applied at very low dosage. However, the high cost for development and toxicological testing of a new pesticide sometimes discourages pesticide manufacturers from marketing a new product that will compete with their own existing pesticide that is selling well. If states or the federal government were to put a tax on leach-able pesticides to pay the cost for monitoring (in vulnerable areas) for all pesticides with the propensity to leach, there would be an economic incentive for the pesticide manufacturers to develop and market new herbicides and nematicides that would have different chemical characteristics and would not pose potential problems of ground water contamination.

Another method to reduce the amount of pesticides reaching ground water is to put restrictions on the use of leachable pesticides near drinking water wells and during rainy seasons. For example, Florida has prohibited the use of aldicarb within 600 feet of wells used for drinking water and also prohibited its use before April. Such methods will not eliminate the presence of a pesticide in drinking water, but they can reduce the concentrations to a point that is considered acceptable.

Ground water contamination problems may be exacerbated in some re-